

MASTER CLASS HANDOUT



THE GUT MICROBIOME/MICROBIOTA

PART I - CONTENT HIGHLIGHTS REVIEW and TAKE HOME MESSAGES

- **Microbiome** and **microbiota** often used interchangeably; are **two different things**.
- **Microbiota:** The diverse population of microorganisms, mainly bacteria, that occupy the intestinal tract (mostly the large intestine.)
- **Microbiome:** The entire genome (genetic material of an organism) of the host's gut microbiota.
- **Host:** Entity that houses microbiome/microbiota, interacts with microbes and responds to them in a way that results in damage, benefit, or indifference.
- Within the **gut microbiota**, there are **1000's of different bacterial species**.
- The **breast microbiome** is distinct from that of other body sites and contains a diverse and unique community of bacteria.
- **Association between microbiota and breast cancer is complex**, and the mechanisms underlying many clinical observations are not completely understood.
- **Gut microbiota** helps produce vitamins, metabolize dietary compounds, protects against pathogens.
- **Dietary choices** impact health through alteration of the gastrointestinal ecosystem.
- The **optimal diet** of an individual may need to be tailored to their gut microbiota.
- **Several possible mechanisms** proposed as a way to understand **microbial influence**.

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